

**What Is Claimed Is:**

1. A method for removing contaminants from thermally cracked waste oil comprising the steps of:

(a) mixing the thermally cracked waste oil with methanol;

5 (b) extracting contaminants within the thermally cracked waste oil into the methanol by maintaining the mixture at a temperature of 50 ~ 70° C and at a pressure of 30 ~ 55 psi; and

(c) separating the methanol containing the extracted contaminants from the cleaned oil.

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2. The method of claim 1, wherein the methanol mixed in the (a) step has a purity more than 99%.

3. The method of claim 2, further comprising the steps of:

15 applying flash evaporation to the methanol containing the extracted contaminants, thereby separating the contaminants from the methanol to obtain recycled methanol; and

reusing the recycled methanol for the mixing methanol in the (a) step.

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4. The method of claim 3, wherein the methanol extraction is carried out within 20 minutes after thermal cracking of the waste oil.

25 5. The method of claim 3, wherein the (b) step is divided

into first and second extraction steps and wherein the mixture ratio of the methanol and oil in the first extraction step is different from that in the second extraction step.

5           6. The method of claim 5, wherein the volume ratio of methanol to oil is 50:50 in the first extraction step.

          7. The method of claim 6, wherein the volume ratio of methanol to oil is 40:60 in the second extraction step.

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          8. The method of claim 7, wherein each step of the first and second extractions is carried out for 3 ~ 5 minutes.